

6 $D = S_x / (S_x + S_y)$,

7 wherein S_x and S_y represent the elliptic equivalent dimensions in horizontal and
8 vertical dimensions respectively, in a plane the core.

9

1 40. (previously presented) The apparatus as defined in claim 35 wherein the powdered
2 soft magnetic material possesses a maximum magnetic permeability given a
3 predetermined maximum RF antenna power loss.

4

1 41. (previously presented) The apparatus of claim 35 wherein said flux density is greater
2 than that of a magnetic core consisting primarily of ferrite.

3

1 42. (previously presented) The apparatus of claim 35 wherein the magnetic core further
2 comprises relative dimensions that are related to the direction of the RF magnetic
3 field and to the magnetic permeability of the powdered soft magnetic material.

4

1 43-50 canceled.

2

The Commissioner is hereby authorized to charge any fees and credit any
overpayments to **Deposit Account 02-0429 (414-13268WOCP-US)**.

Respectfully submitted

Date: December 15, 2004



Kaushik P. Sriram, Reg. No. 43,150
2603 Augusta Suite 700
Houston, Texas 77057-5638
Tel: (713) 266-1130 x 121
Fax: (713) 266-8510
Attorney For Applicants